

The final-instar Larvae of two Anomaloninae (Hymenoptera: Ichneumonidae) from Australia

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The final-instar larvae of two Anomaloninae from Australia are figured. The taxonomic characters of the known final-instar larvae of *Anomalon* are discussed. Information from the final-instar larva of *Habronyx (Austranomalon) pammi* Gauld is used to construct a larval key to three subgenera of *Habronyx*.

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INTRODUCTION

Gauld's (1976b) revision of Australian Anomaloninae has been used to identify the adults of two reared Australian species of particular interest. The final-instar larva has not been described for any species of *Anomalon* from Australia; further, the final-instar larvae of the two Nearctic specimens of *Anomalon* described in Short (1978) were from material that could not be identified to species level. The species of the exclusively Australian subgenus *Austranomalon* gives information for distinguishing the known final-instar larvae of the subgenera of *Habronyx*. I have followed Gauld (1976a, b) on the name for this subfamily. The name Anomalinae has been in wide use, at least in Britain and North America (Townes, 1971).

MATERIAL AND METHODS

Anomalon morleyi Gauld ♀ emerged 13.ix.1974 from larva of *Pterohelaeus* sp. (Tenebrionidae), host collected as larva 10.ix.1974, Queensland, 20 km south of Jondaryan, P. Allsopp, Department of Primary Industries, Qld.

Habronyx (Austranomalon) pammi Gauld ♀ from pupa of *Mnesampela privata* (Guenée) (Geometridae), N.S.W., Windeyer, 1975, J. F. Read, N.S.W. Department of Agriculture.

The methods of making slide preparations from the exuviae of final-instar larvae are given in Short (1978:4). Terminology, and its basis in comparative morphology, is given in Short (1952). The scale line for both specimens represents 0.1 mm. The slide preparations will be deposited in the above institutions.

DISCUSSION

The larval characters of the Anomaloninae are outlined in Short (1978:96, 97). The species discussed, as in other Anomaloninae, spin only a flimsy cocoon within the host.

Anomalon, which is known from all zoogeographic regions, and the related Nearctic and Neotropical *Neogreeneia*, are isolated genera of Anomaloninae.

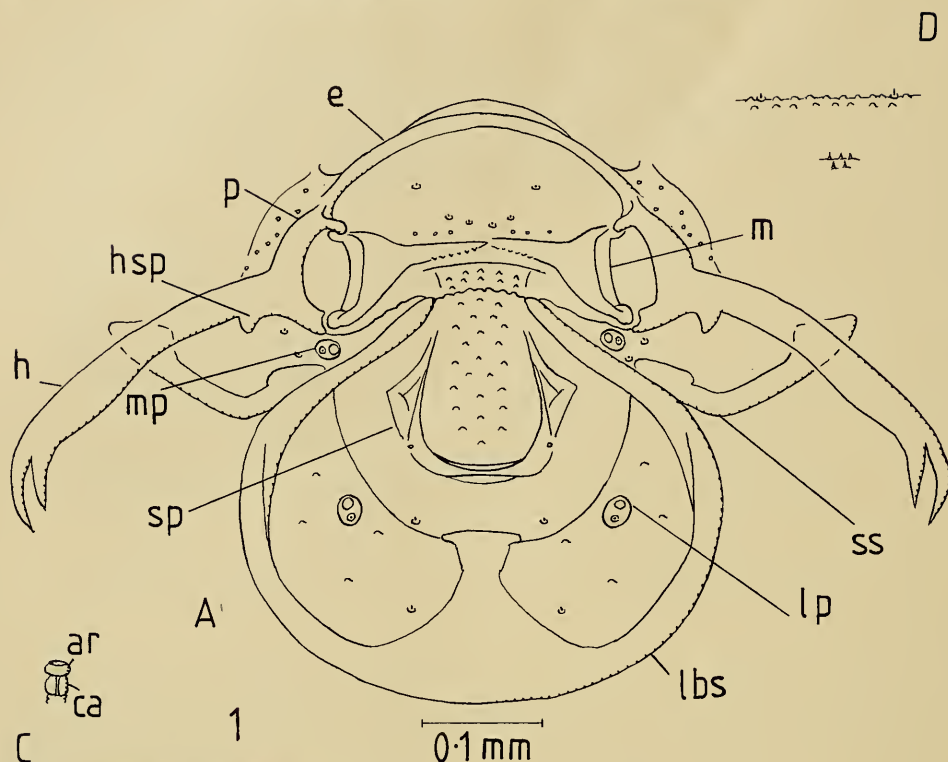


Fig. 1. *Anomalon morleyi* Gault.

Anomalon is unusual in the subfamily in parasitizing the larvae of soil-dwelling Coleoptera; the biology of *Neogreeneia* is unknown. Other Anomaloninae parasitize Lepidoptera. The adults of the two Nearctic specimens of *Anomalon* figured in Short (1978) could not be determined to species. As many as ten species have been confused under the name of *A. ejuncidum* Say (Carlson, 1979). The mandible only of a final-instar larva of *Anomalon* sp. is figured by Gault (1976a: 115). Mr Gault has advised me (in litt.) that this specimen was from the Mediterranean region. It is therefore valuable to have this Australian *Anomalon morleyi* Gault (Fig. 1) identified to species level. Mr Gault has confirmed the identification. Material of known final-instar larvae of *Anomalon* is remarkable in showing very uniform characters. All possess the distinctive mandible (m) with teeth on only the ventral surface of the blade. All show a reduced hypostomal spur (hsp). The labial sclerite (lbs) is similar in its rounded form with a dorsal projection from the mid-ventral region. The maxillary (mp) and labial (lp) palps are similar in showing one round sensillum and a reduced seta.

The genus *Habronyx* is a rather unsatisfactory heterogeneous assemblage of species that exhibit few common adult characters (Gault, 1976b). The genus has an almost worldwide distribution and Gault (1976a) recognizes four subgenera. *Habronyx* (*Camposcopus*) *nigricornis* (Wesmael) (Short 1978, fig. 635) is very similar to *H. (Austranomalon) pammi* Gault (Fig. 2) on larval characters, even to the grouping of sensilla on a raised area of the labrum (1). *H. (Habronyx) pyretorus?* (Cameron) figured by Gault (1976a: 115) differs markedly in larval characters from the first two subgenera.

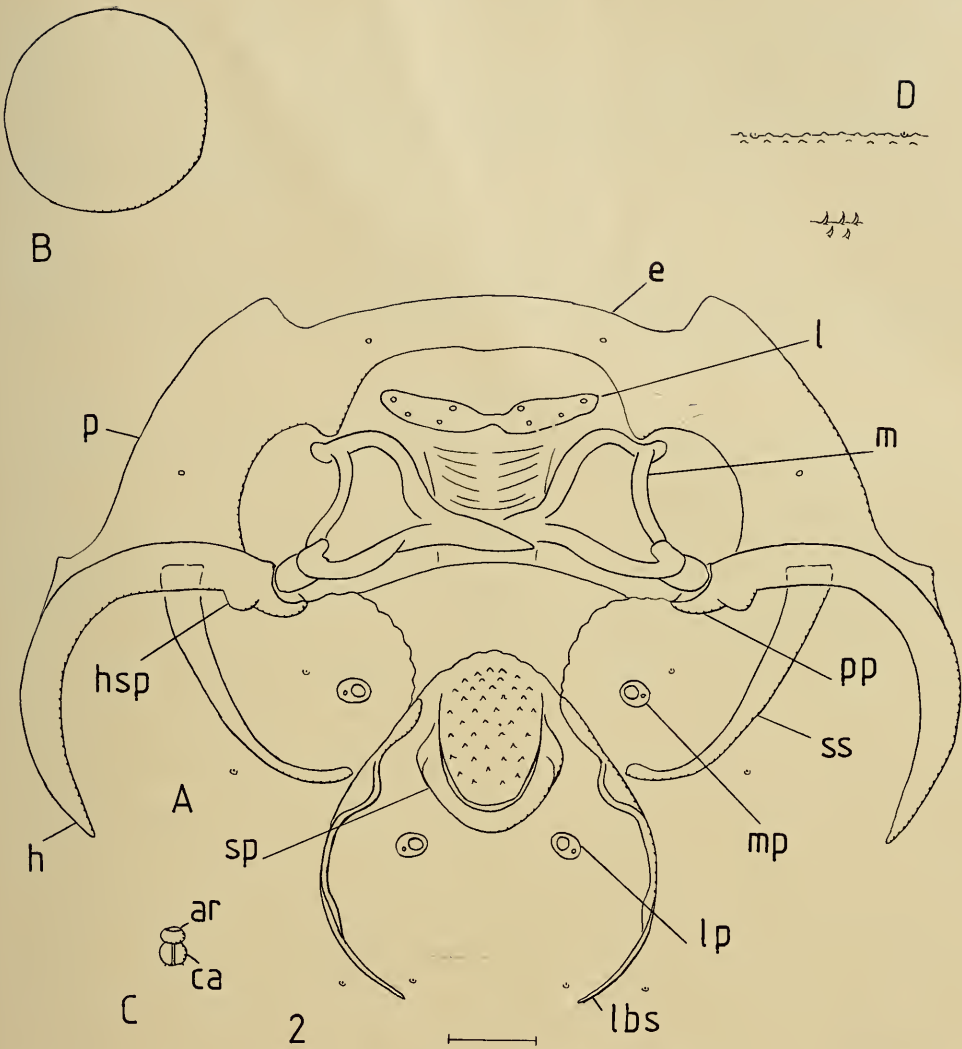


Fig. 2. *Habronyx (Austranomalon) pammi* Gauld. A, Head sclerites anterior view; B, Antenna; C, Mesothoracic spiracle; D, General surface of cuticle and spines at posterior end of body.

ABBREVIATIONS

ar atrium of spiracle; ca closing apparatus of spiracle; e epistoma; h hypostoma; hsp hypostomal spur; 1 labrum; m mandible; mp maxillary palp; lbs labial sclerite; lp labial palp; p pleurostoma; pp posterior pleurostomal process; sp silk press; ss stipital sclerite.

Larval key to three subgenera of *Habronyx*.

1. Epistoma conspicuously broad with depth of median part two thirds of length of mandible; median two thirds of length of hypostoma conspicuously broad with depth about equal to length of stipital sclerite subgenus *Habronyx*
 Epistoma and hypostoma not of this form 2
2. Lateral end of hypostoma enclosed by a lightly sclerotized area; ventral part of

labial sclerite unsclerotized for part equal in length to distance between posterior pleurostomal processes subgenus *Camposcopus*
 Lateral end of hypostoma not enclosed by lightly sclerotized area; ventral part of labial sclerite (Fig. 2, lbs) with length of unsclerotized part about one half distance between posterior pleurostomal processes (pp) subgenus *Austranomalon*.

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